

# Laser Patterned Transparent Conductive Substrates:

## ITO and FTO glass, IMI PET



High quality substrates for optoelectronic applications

Patterned/Structured by femtosecond laser

Liquid crystal displays (LCD) technology

Organic light emitting diodes (OLED)

Organic photovoltaic and perovskite (solar) cells

Electrochemistry

Flat antennas for mobile communication

Conducting glass/Transparent electrodes

### Transparent, conductive coatings on glass

- Electrical conductivity and optical transparency
- Homogeneously flat ITO, FTO and IMI coatings
- Low roughness
- Uniform transmission

### Laser cut properties

Typically 10-20  $\mu\text{m}$  width, no shunts, no spikes, no debris

### General ITO glass properties

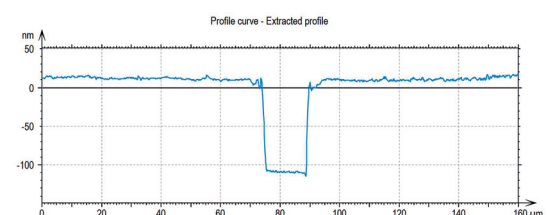
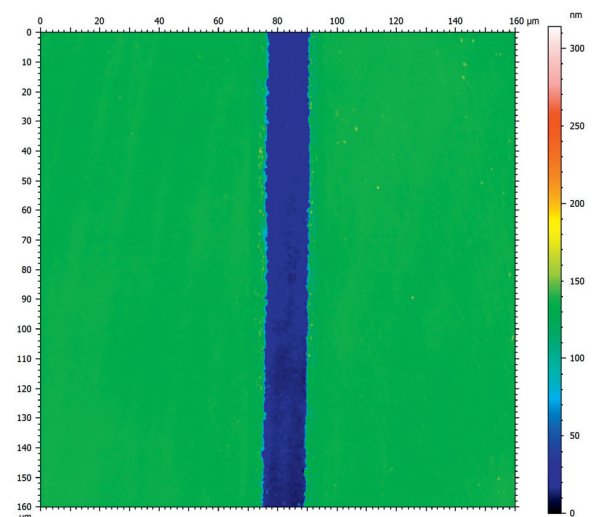
- OLED grade, polished, very low roughness, high transmission
- Standard conductivity range 7-20  $\text{Ohm}/\text{sq}$
- Glass thickness 0.7-1.1 mm

### General FTO glass properties

- Low roughness
- Standard conductivity range: 7-13  $\text{Ohm}/\text{sq}$
- Glass thickness 1.8-3 mm
- >80% transmission

### Patterning of other conductive coatings or other structuring tasks

Get in touch with us



The fastest available patterned substrates, delivery time from one week for customized substrates

Fast adaption of pattern, no lithographic masks needed, no additional setup costs

Lines down to 10  $\mu\text{m}$  thin, and min. spacing 20  $\mu\text{m}$

Laser structured conductive layers with highest precision, thin cuts, completely isolating

No large ablated areas -> homogeneous surface improves solution processed layer quality

Substrate size up to 200 x 200  $\text{mm}^2$

Whole kits with evaporation masks, aperture masks, encapsulation cover slips, sample holders and electronic measurement systems available

